

87. Short Chains and Long Tails: Raw milk distributors and E. Coli O157 in Italy: errors to be learned from a risk communication perspective and policy making suggestions

Corrado Finardi, *Policy Adviser, Confederazione Nazionale Coldiretti, Italy*

Following Reg. CEE 1411/1971, the Italian law 169/89 forbade distribution of raw milk, apart from milk sold directly by farmers in the farm. However, in recent years, due to regulatory changes at the EU and national level, it has been made possible in Italy to sell raw milk from automatic distributors. Legislative foundations rely on the "Hygiene Package" (4 EC Regulations on food safety requirements), in particular Reg. 853/2004 EC (whereas 24, and art. 8, which gives liberty to Member States to allow or not the sale of raw milk, under strictly ruled hygienic conditions). Furthermore, Section 9 of the Reg. 853/2004 EC set rigid hygienic requirements.

Over a short period, about 1,100 milk distributors appeared on the Italian landscape (2004-2007), for a market share of 4%-6% of milk sales, equal to 80,000 litres of the 1,230,000 litres total sold daily. This event was perceived as allowing savings for consumers: the price per litre was about 20-40 cents less than that of traditionally distributed milk on the grocery channel (1 euro raw milk, versus 1.20-1.40 euro in the supermarkets)

363

In 2008, a media crisis broke out starting from the daily *Il Riformista*, and the issue gained the agenda of national and local press/broadcasting, resulting in a prolonged "food scare". The raw milk was blamed for several cases of a disease due to the *Escherichia Coli* strain O157 bacterium, which is highly pathogenic and with possible fatal consequences for children.

Conditions of production, storage and transport of raw milk have been accused of lacking respect for hygiene requirements, and most of all, of the lack of the pasteurisation procedure in place as a general mean recognised to avoid bacteria. As an immediate response, the Minister of Health ordered by an urgent decree, to state in red characters letters in front of the distributors and with a defined size, "*raw milk: to be boiled before consumption*". However, reconsidering the necessary aspects of an appropriate risk management cycle (risk assessment, risk management and risk communication), it is possible to consider that the framing of the issue was neither evidence-based nor legally confirmed.

It implies both aspects of lack of good journalism in place (absence of a tradition of "fact checkers" charged to assess and filter data); of good science (not sufficient data or "smoking gun" to establish a link between injuries due to *E. Coli* O157 and raw milk consumption); and of a juridical basis too. Mirroring this with the sociological framework of the theory of Niklas Luhmann, there was a cumulative and contemporary default of several sub-systems (Science, Law) resonating with the public sphere. In particular, the so called "Legnago case" (a child was thought to have Emolitic Uremic Syndrome/ *E. Coli* O157 from raw milk) was clearly denied by the competent health officials investigating the issue. However, the *media mismanagement* was out and not possible to recall due to the autonomous life of the communication arena.

The article in *Il Riformista* was published on 3 December 2008 and the urgent decree from the Minister of Health was legally binding from 8 December. The lack of time for an appropriate risk assessment and adequate stakeholder engagement, even if were not required enough from a public health point of view, was due to specific interests. It is also doubtful if the measure had any real value; mostly, Emolitic Uremic Syndrome is linked to undercooked bovine meat, and hence called the “hamburger disease”: but on meat packages there is no compulsory indication such as “cook it for at least 120 seconds at 72° C “, and sales of crude meat are not forbidden.

Differently from an ideal risk assessment process, departing from evidence, following with media re-balancing and stakeholder engagement and eventually resulting in a policy output, in this case the media framing produced immediately a policy output and only in the end a fair degree of risk assessment. The cause-effect relationship was so far inverted.

In the end, what stands out is that this was not “evidence-based” policy making. There was no “smoking gun”, as frequently happens for zoonosis, neither evidence or settled opinions on a number of issues linked to the case. But it was *effective*, meaning that an over-conservative response allows for food safety. This is the approach generally used when there is not enough data, in order to better protect vulnerable sub-groups of the population. However, the approach was not efficient. Policy-making requires a cost-benefit analysis of the options in order to improve the protection not only of public health but also of economic interests at stake (when legitimate and protected). The emergency procedure created by the media crisis did not allow to take into account all the relevant factors, and no other policy options have been properly considered and balanced.



364

In particular, the available evidence shows that the frequency distribution of the infected cases (EUS) follows a typical “*long tail*” shape (i.e. a limited number of subjects up to 5-7 years old accounting for almost the 90% of the infections).

These preliminary considerations could be useful in order to address properly the issue, learning from other policy-making sectors and experiences. In fact, efficient policy-making requires *not general* but *selective* actions (i.e. targeted to specific population groups), and there is not here a “one size fits all approach”.

This research was useful in order to advance suggestions from Coldiretti to the Italian Minister of Health to redress risk communication at the points of sale (distributors) of raw milk. These were focused on better targeting of more vulnerable age groups (*long-tails* learning) and on the need for better *framing*, with more emphasis on *consumers’ responsibility*.